

Coventry University

Softwarica College Of IT & E-Commerce

Bachelor of Computing Science

(Hons)

Project Proposal

**Blood Bank Management System**

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# Introduction

As a student of Information and technology I am keenly interested in software designing and developing centralized information for the software. My course has led me to consider the different features and methods that simplifies and automates the process such as searching of blood for emergency case and maintaining the records of blood donors and receivers, blood stocks and blood donation programs. Blood bank management system has provided me the opportunity to learn about the platform, tools and application that is used for designing of the automated system.

# Project Domain

At current circumstance people can be informed about blood donating events only through medias like advertising through television, news papers and radio fm. Information related to the programs of blood donation is not presented on any portal. The current system used by the blood banks is manual. This causes problem in managing donor’s records. They can get lost due to human errors or also disasters. Same donor’s information might have more than one record. Also there is not any centralized database for the volunteer donors and recipients. The remaining option is to find the donors manually and match them and call the each donor.

Also there is no available database keeping donors records. In case the donor donates blood from different blood bank, there will be no previous record that can be traced. And the donor will be considered as the first time donor in every new place. Also there is no alerting system available to find if the blood stock is available or the stock has expired or not. Due to the unavailability of an automated management system there is problem for tracking definite amount of blood type available in blood banks.

## Aim

The main aim of the project is to develop a blood bank application for automating the blood management activities.

## Objective

The objectives of the blood bank system are given below:

1. To establish a mean for publicizing and advertising blood donation.
2. The system provides the centralized and synchronized database of donors and blood stock.
3. It allows search and match for the donors and recipients.
4. It improves blood stock management efficiency by alerting blood bank staffs if the blood amount is in stock or the available blood has expired or are they useable.
5. Users can get information about the donation program and find out the nearest blood banks.

# Project Scope

The system allows function like automating the different activities of the blood bank management application. All together the system is focused to work in accordance with blood bank system and can also be extended to preserve records of hospitals and other sectors.

The included processes are:

Login: Login system provides better security for the application. It uses username and password to match so that only privileged user can enter the management system within certain level of authorization.

Blood donation event and advertisement: It provides features like allowing the blood bank staffs for publicizing blood donating event. People can view time for organized blood donation programs.

Donor profile: Through this function public can be registered as a volunteer donor.

Online blood request: It allows the recipient to make online request for blood. Once the request is filed the donors are matched and the request is forwarded for necessary details.

Managing blood stock: Blood bank staffs manage the information of blood collection. The system provides alert whenever blood stock are available or not.

Donor and recipient management: It keeps the collected information of donors and recipient in one centralized database reducing the errors like duplicating of data.

Reporting: It generates reports like donors, staffs, recipients and blood quantity in banks and charts.

## Technology

1. Operating System: Windows 10
2. Database Management System: Mongo DB
3. Programming Language: Java script
4. Web-Framework: Node Js, Jquery and bootstrap.
5. Browser: Google, Firefox.

# Uses

Blood Bank System is a web based application. It is used as a mean for advertising the blood donation events to public and allows the public to make online request and reservation for blood. It is used for recording information of donors, receivers, blood donation programs and rejected bloods. Registered user can find nearest blood bank and its relative information. It can be used to keep track of donor’s records, blood stocks and to improve record management efficiently as the size of the data records always increases.

# Main Features

The main features of the system respective to their entities are as follows:

Admin

* Manage user registration.
* Control information of blood bank like updating and deleting.
* Control donors request for blood donation.
* Managing the request of patient for receiving blood.
* Managing the inquiry form and feedback for reply.
* Handling user and event notification.

Blood Bank

* View updated information about blood bank.
* Update blood bank data and information.
* Managing blood request for registered user.

Donor

* Managing the profile of the donor.
* Adding of new blood donation.

Patient

* Manage profile for the patient.
* Requesting for blood.

# Conclusion

Developing the web application will be a great addition for the effective publicity of the blood donation events. It will provide a greater way for effective donating and receiving of blood. User can get blood in easy way through online web application, whenever they need blood. System also support for blood donor to donate their blood. Projects will be completed user node.js as backend and query and bootstrap.